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ARTICLE I.—*An Address delivered at the first Annual Meeting of the De Witt County Medical Society, held at Clinton, Ill., April 6th, 1857.* By CHRISTOPHER GOODBRAKE, M.D. Published by request of the Society.

Gentlemen:—The Constitution we adopted at our first meeting, makes it obligatory upon the President to deliver an address before retiring from the chair. And although, unfortunately for me at this time, I am not 'one of the speaking kind,' I will not shrink from the discharge of this last duty pertaining to the official station, in which your kind partiality has placed me. But to the fulfilment of this obligation I will now devote a brief space of time, and to what I may have to say on this occasion, I beg leave to solicit your kind attention.

The subject which I have not deemed it inappropriate to dwell upon, in what few remarks I shall attempt to make, is a theme worthy the pen of our best writers, and the efforts of our most accomplished speakers in the profession. It is a subject of which we should never allow ourselves to lose sight for a moment, as long as we wish to be considered members of the medical profession, namely: OUR DUTIES AS PHYSICIANS.

There has been a great deal both said and written on this subject; and in the National Code of Ethics, which we have

adopted, the duties of the physician are so clearly and ably set forth, that it might seem an act of arrogancy in me, to talk to you on this topic. But I assure you, gentlemen, that I do not wish to be understood as assuming to myself the capability of adding in the least to the excellent precepts laid down for the rule and guide of our conduct, in the finished document referred to. All I will endeavor to do, is, earnestly to direct our attention to the subject, and bring these things home to ourselves, in order, if possible, that our minds may become so familiarized with them that it may become a *habit* with us, on all occasions, to pay especial regard to our obligations as members of the medical fraternity.

Our duties as physicians are manifold and various in their nature, and I will proceed to consider only a few of them, in the order as they may present themselves to my mind.

From the day on which we first open an office, 'hang out our shingle,' and offer our services to the public as members of that noble profession, whose object is to alleviate or remedy the many maladies and diseases incident to the human family,—to the time when we may either quit the profession from choice, or which is far nobler, like the fearless and faithful warrior die at our post; we should most conscientiously avoid every thing, either in word or deed, which might have a tendency to detract from the importance of the science of medicine in the estimation of men; bring reproach upon the profession; unnecessarily or ignorantly, hazard the life and health of any one entrusted to our care; or bring ourselves into deserved disrepute. But, on the contrary, we should do every thing within our power, to promote the advancement of the science of medicine, elevate the character of our profession, exert our best abilities in behalf of our patients, and walk uprightly in our station as physicians before God and man.

If these remarks are correct, and I presume no one will gainsay them; it will be seen that our duties although numerous and diversified, may be grouped under the following four principal heads, namely: *Our duty to the science we profess; Our duties to each other as professional brethren; Our obligations to the community; and the duties we owe to ourselves.*

The science of medicine is a noble science, and worthy the thoughts and labors of the most gifted intellects, in this our day and generation. She has had for her votaries some of the most exalted minds, through a succession of ages, from a very early period in the world's history down to the present time. Such men as Hypocrates, Galen, Celsus, Haller, Sydenham, Cullen, Hunter, Bichat, Rush, Physick, Chapman, Drake, and a host of other worthies, too numerous to mention—all men of giant intellect, have spent their best strength in the upbuilding and fostering of this their favorite science, and have handed it down to us, not indeed perfect, for nothing on earth is perfect; but they have laid the foundation broad and deep upon the adamantine rock of scientific research, cemented it with experimental wisdom, and have reared the *temple of rational medicine* until it rises before our admiring gaze in the most beautiful proportions. And we who wish to be considered as workmen worthy to be engaged in the progressive labor, which still is, and ever will be requisite for the completion and adornment of this stupendous edifice, must strive in some measure at least, and according to the best abilities wherewith God hath blest us, to imitate the noble examples set before us by these *Master-Builders*.

It is our duty then never to relinquish our studies, we must be found at our task early and late. For, if we allow ourselves to become negligent, and cease to refresh our minds at the fountains of science, we will very soon, instead of a regular advance in medical knowledge, find ourselves moving in a retrograde directions. And instead of producing material worthy to be incorporated in the building already referred to, our mark will be found 'neither oblong nor square,' and must necessarily be cast aside among the rubbish, as 'unfit for the builder's use.'

Let us to work then, with willing and ready minds. Without labor we can accomplish nothing; and here I would remark, that our labor is not all disagreeable and uninviting. But I am sorry to say that upon this very rock, so many, *very many* physicians make shipwreck of their scientific faith. As soon as they 'get through,' as they very complacently term it, they cannot think of applying their minds to the head-aching studies of Anatomy, Physiology, Chemistry, or Pathology. And if they study at

all, they content themselves with a superficial gleaning of what refers to practice, although it is as certain as the laws of gravitation, that the physician who neglects to keep himself 'posted up' on these fundamental branches, and who lacks the energy to keep pace with the improvements and discoveries, not only in these, but all the other branches, soon becomes unfit even to practice medicine, surgery, obstetrics, &c.; and far less will he have the capacity, or even the inclination, to do any thing for the furtherance of the science he is too indolent to cultivate.

But what is there more entitled to occupy the mind of man than that study which makes him familiar with the great 'Masterpiece' of Gods' handiwork? What more satisfactory than chemistry, which teaches him the elementary principles and properties of his own body, and the material world which surrounds him on all sides? What more beautiful than physiology, which teaches him the laws of life and death? And what more interesting to the philanthropic physician, than the study of the cause, nature, and effects of disease, which furnishes him with data, upon which to institute a judicious treatment, either medical or surgical?

Then let us be up and doing. We can all do something. We may not all become stars of great magnitude in the medical constellation, but we can all contribute our mite however small. And if we do this, not loitering around as loafing worshippers at the shrine of *Æsculapius*—and faithfully discharge our duties, it will not be said of us, after we have gone to—

'That land of deepest shade,
Unpierced by human thought,'

that we have lived in vain, and disgraced the science we professed.

As physicians we should consider each other as belonging to the same family or brotherhood, we should all have the same object in view, and our interests (in a professional sense) should be the same. We should as one man strive for the advancement of the science of medicine, and the elevation of the character of our profession; and this end we can best attain, by first being prepared to discharge the obligations of physicians ourselves, and then act honorably and uprightly in all our inter-

course with each other. Nothing has a greater tendency to depreciate the character and usefulness of our profession, in the estimation of the community at large, than our own shortcomings in regard to proper qualifications, and the wranglings and backbitings which, I am sorry to say, are far too common among the physicians of some neighborhoods; sometimes it is the case, that one physician has just cause for hard feelings against another. But so far as I have been able to judge, from my own experience and observation, I have been led to the conclusion, that these 'hard feelings' more frequently arise from *imaginary* wrongs. They are not very seldom the offspring of little minds, devoid of magnanimity and nobleness of soul; but full of sickly peevishness and professional jealousy. The physician who is duly qualified to discharge the duties of his office, and who is determined to discharge that duty in a conscientious manner towards his patients, and with due regard to the feelings of his professional neighbors, need scarcely ever be troubled with any of these professional difficulties, as they are usually termed. He will, as a general thing, gain the confidence of the community in which he resides; receive a just reward for all his studies and labors; he will deserve and receive the good will, aid, and comfort of his medical brethren in his own immediate neighborhood, and the esteem of the profession at large, and as a consequence, he can treat with silent contempt the backbitings and *innuendos* of little minded and jealous hearted doctors, and bid defiance to all quackdom, to curtail his practice or injure his reputation as a medical practitioner.

Nevertheless, I will mention one or two of the sources from which 'hard feelings' may arise, and endeavor to explain how they should be met and disposed of. One of these we shall find to rest with the people, who will occasionally have a physician called in to prescribe for one of the family, and probably, as is frequently the case, in this part of the country, inform him that if the patient 'does not get along well, they will let him know.' And then more than likely the very next day, send for a second physician, without any explanation to either. I have frequently known three or four physicians to be called in succession in this manner, sometimes designedly, occasionally

maliciously, and very often through ignorance (of the consequences) on the part of those who make these indiscriminate and indiscreet calls on the profession. And in this very way, I have known misunderstandings and ill-feelings to arise among 'the electors,' which it required months, and sometimes years to correct or allay, and which, by a little seasonable 'talk,' might have been all explained, and good will and harmony maintained. When troubles of this kind come to our knowledge, where we ourselves are a party in the case, it is our imperative duty, not to get angry with our brother physician, and go gadding around through town and country, and inform every one we meet, how very mean such or such on one has treated us; but to call on the physician and kindly enquire of him how it happened and he will, as a matter of course, state the case in its proper light. Or, on the other hand, if we were unwittingly caused to encroach upon his rights, it is our duty to make all due explanations to him; and all of us should discontinue such acts on the part of those who employ us. We should teach them what is right and what is wrong, in regard to these things, and this we can do without any hard thoughts on their part whatever. On the contrary, they will esteem us for candor and plain-dealing between our professional brethren and themselves.

Another fruitful source of trouble among physicians, is a spirit of professional officiousness, as it is called by some,—I would call it *unprofessional* rather. One of the most despicable characteristics in the physician, is an insidious meddlingness in another's affairs. Some physicians make it their business to seem to have an extraordinary sympathy for every one who happens to be sick, and who is so unfortunate as not to have secured their services; and if they do not go directly to the patient's room, they accidentally call in to see his friends, and enquire very humanely all about the case, pump out of them all they may know about the symptoms and treatment,—then probably give an ominous shake of the head, or shrug of the shoulder, and enquire if such or such remedies have not been tried. And upon receiving an answer in the negative, will say 'tis strange, 'tis passing strange;' and finally wind up by telling the friends, that they 'hadn't ought to say any thing,'

but they merely wish to intimate, that they had a patient *precisely similarly* affected, and the case was got along with, without any trouble whatever. Now, all this is dastardly mean, I need not tell you it is unprofessional; but it matters not by whom it is practiced, whether they call themselves 'regular' or 'irregular' we need not go to the trouble of calling down anathemas upon their devoted heads, for verily, they will very soon reap their just reward. They will be held in contempt and detestation by all highminded and honorable physicians; and the people soon discerning their object, will withdraw what little patronage they formerly bestowed upon them. I am sure we have none such in our Society, and for the sake of the honor of the profession, I hope we have none in this part of the country—who profess to be regular practitioners, and who would notwithstanding be guilty of such ungentlemanly and reprehensible conduct.

Gentlemen, in the practice of medicine as in all other callings, honesty is the best policy. If we are properly qualified for the practice of our profession, and act honorably in all our dealings with those who employ us, and with one another, I have no fears that our exertions will not be rewarded with a reasonable share of success, both in a professional and pecuniary sense; and we will be spared the labor to withstand the temptation of endeavoring to supplant one another. Let us then deal honorably and uprightly with each other; ever remembering, that every word spoken against a worthy member of our profession, is just so much calumny against the profession at large. If a man practices medicine among us, let us endeavor to treat him as he deserves. If he be a gentleman, worthy to be taken by the hand as a physician, never interfere with his practice, except so far as to assist, encourage, and support him all we can. If he is a quack; never meddle with his immediate affairs; but give him personally, a severe letting alone. But his doctrines, if they be false, and calculated to do mischief, we should reserve the right to expose whenever occasion may require. Upon the whole, I have an abiding faith in the good sense of the community; the people may be led astray for a while, by the machinations of false pretenders, but this is only for a season;

they soon became convinced of the artifice palmed off upon them, and will certainly return to bestow their patronage upon the most deserving.

We are under the strongest and most solemn obligations to the community in which we offer our services as *medical practitioners*, that we be fully qualified and prepared to discharge our duties *as such*. Bear in mind, gentlemen, that our patients are not mere machines, for us to experiment and practice upon. But that they are endowed by nature and by nature's God with the like feelings, sensibilities and reason as ourselves; and that we will be held to a strict account for the manner in which we discharge our duties towards them. In the great day of reckoning, want of knowledge, want of skill, and want of proper attention will not be taken as a valid excuse for homicides committed *secundem artem*! It is our duty to acquire all the knowledge and experience we possibly can, and then to exercise them to the best advantage possible, in every case entrusted to our charge. How dare we, if not properly qualified, take upon ourselves the fearful responsibility of administering medicine to our fellow man? Or attempt to cut with the knife among glands, nerves, tendons and *blood vessels*!—when not properly understanding his anatomical structure? We would necessarily be compelled to grope our way in the dark, and the chances of doing him harm, would be infinitely greater than of doing him any good.

To the community we look for patronage, and the people look to us,—and they have a right to expect of us—proper advice and instructions in relation to the laws of health, as well as medical advice and services. And in these days of 'humbugism,' when almost every day some itinerating doctor or lecturer finds his way among our citizens, for the avowed purpose of enlightening their minds in regard to Fowlerism, Grahamism, and Preisnitzism, and their peculiar rules of hygiene,—it behooves us who profess and of right should be 'guardians of health' in the community, to keep ourselves well informed of the doctrines taught and disseminated among the people by these traveling mountebanks; and, if false, to expose them on all suitable occasions. These *traveling* charlatans are the cause

of more disgrace to the 'healing art,' and create more mischief in the community, than all the local quacks, of whatever school they claim to be disciples. For the latter have to undergo the ordeal of the common sense judgment of the community in which they happen to locate, and their ignorant pretensions are sooner or later unmasked; while the former inculcate their peculiar doctrines in the form of popular lectures, and are off before the people have time to measure the *source* from which they received the opinions taught them.

I am one of those who hold the opinion that Grahamism and Preisnitzism have done a great deal of mischief. This thing of feeding the people on chop-bread and black tea; and of wrapping the old and the young, big and little, in wetsheets for every 'ill that flesh is heir to,' has done more harm than is generally acknowledged, and is too often entirely overlooked by physicians. I have not now the time to enter into a full examination of this subject, but suffice it to say—that the effects of these senseless practices may be seen in the sickly-looking, heart-palpitating, half-nourished men, women and children, met with on all occasions, more particularly in neighborhoods where these foolish doctrines most prevail.

But in the enumeration of our duties, Gentlemen, we must not forget those we owe to *ourselves*. We owe it to ourselves, that we build up for us a good reputation, and, in order to do this, we must be good, moral men, we 'must on all occasions feel and act as *gentlemen*.' This is as necessary to our 'advancement in the profession, as knowledge and skill.' A physician may become well versed in the science of medicine, he may be apt and thoroughly skilled in the practice, he may even obtain wealth, and be placed in (erroneously so-called) independent circumstances. But what will all these profit him in the end, if, with all his accomplishments, he is the subject of irregular and immoral habits or vicious practices; the higher, the scientific and professional eminence he has attained, the greater, if he does not immediately reform, will be his fall. He very soon becomes a byword in the community, a disgrace to himself and his friends, and, as a never failing consequence, he will debase the dignity of the profession. There are any number of

instances on record; and some, if not all, of us have seen melancholy examples of physicians, who have commenced their career under the most flattering circumstances, and who have for a season gained professional renown and applause; who might have remained ornaments in the profession, and a blessing to the community through life, and died respected and regretted by all; but who have, by their own imprudent and immoral conduct, precipitated themselves from the high eminence which they had attained, into the lowest depths of professional oblivion and moral degradation; and many such have gone down to premature graves—

‘Unwept, unhonored, and unsung.’

Let us avoid all immoral and vicious habits as we would the ‘bite of a serpent or the sting of an adder.’ Let us be resolute and determined, never to be the slaves of any of those evil besetments; which are so directly calculated to impair the faculties of the mind, and which, if they prevent any man from attending to his business in a rational and conscientious manner, have a twofold tendency to incapacitate the physician for his responsible duties, who of all others, should always be in the possession of a clear mind and a steady hand; not knowing what moment he may be called, where life depends upon the manner in which he ministers to his patient!

You will perceive, Gentlemen, how easy it would be, under circumstances such as I have just hinted at, for a physician to sink in an evil hour, a reputation which it had cost him a life-long labor to build up. Let us remember, that ‘a good name is rather to be chosen,’ than the pleasures and follies of this world!

Before closing, I must remind you that it is now one year since a few of us met for the purpose of organizing a County Medical Society. Some of you, who were present on that occasion, will recollect the remarks I then made, relative to the benefits to be derived, both by physicians and their patrons, from proper medical organizations; and I appeal to you, Gentlemen, if what I said on that occasion has not already been partially verified, so far, at least, as one year can develop the effects of a measure of this kind. We have met four

times during the year; have interchanged ideas with one another, which has in a marked degree promoted social feeling among us. We have had essays written, and read before this Society. We have also been favored, to a certain extent, with reports of cases and observations made at the bedside; and I am free to say that the writing and reading of these essays and reports, and the debates they called forth from among us, has been the cause of more searching among authorities, and more original thinking on subjects connected with medicine, in this one year gone by, than would have been the case in a half-a-dozen years, without this *stimulus* to medical emulation.

In conclusion, I must entreat you never to lose the interest I am sure you all now feel in our County, State, and National Societies; attend all the meetings of these bodies you possibly can; and my word for it, you will always return home benefitted. These meetings are not alone useful in promoting the welfare of the profession at large, but also in stimulating to increased individual efforts. Always bear in mind, that associated effort will frequently attain, what individual exertion, however well directed, could never accomplish.

ARTICLE II.—*Iodine in Scrofula, Phthisis, Pulmonalis, and all that class of diseases, which depend on an hereditary tendency or constitutional taint.* By B. WOODWARD, M.D., Galesburg, Ill.

That there is such a condition as that of 'taint' cannot be denied. That tubercular disease of every grade, including that form of it known as scrofula, depends on this taint or animal poison, is a proposition which few will be willing to controvert. That iodine, so far as experiments have been made with it, has proved an antidote for animal poisons none can deny.

The brilliant experiments of Prof. D. Brainard, with the woorara, and other animal poisons, and a few experiments made by myself, including a case reported by me in your journal for Feb., 1856, have shewn that it will neutralise the most virulent poison. Its use in the U. S. Marine Hospital, in Chicago, by Prof. Brainard, in the form of vapor, for the treatment of the most inveterate forms of ulceration, and its constitutional use,

both in that Hospital, and in the Mercy Hospital, under Prof. N. S. Davis, in tubercular diseases, convinced all who had the privilege of following those hospitals the past winter, that it was an agent of great remedial power. The *modus operandi* of this medicine has been thought to be by promoting absorption; but, that this is only a secondary action seems to me clear. Its primary action seems to be by destroying the poison itself. 'Headland' in his invaluable work, on the 'action of medicines,' says: 'Iodine is not like mercury, a general antiphlogistic, but it is a stimulator of the function of absorption, as are all medicines that tend to impoverish the blood. Such medicines, when their action is pushed to an extreme, may, by destroying the albumen and fibrin of the blood, cause it to repair for its renovation, by means of the absorbent system, to the very tissues themselves. This action in causing absorption, can be no explanation of the blood-operations for which iodine is employed; for these are peculiar to it alone; whereas the other property is shared by other remedies. But this absorbefaciant action has doubtless been much exaggerated. By its action in neutralizing poisons in the blood, it is able to disperse any tumors which have a scrofulous or syphilitic origin.'

Adopting Headland's view, which I think to be the only correct one, we have the action of iodine in the diseases under consideration fully explained. It acts as a catalytic. It finds in the blood certain ingredients which do not exist there in a state of health, and its tendency is to destroy the morbid influences, and thus restore the system to a condition where the iron, the cod liver oil, and the glycerine, and other restoratives can come in and build up the wasted system. In that most dreaded disease, tuberculous meningitis, its effects have been very satisfactory. The almost identity which exists between scrofula and true tuberculosis, points most unmistakably to the same class of remedies in their treatment. I am strongly led to the belief that they are only different developments of one and the same disease. It is frequently observed that in families in which there is an hereditary tendency to scrofula, phthisis develops itself at an early age, and particularly are the children of such families subject to tuberculous meningitis. I have two such

families now in my mind, in which this condition was strongly marked. Two of the children in one family, and one in the other, had died of what was called hydrocephalus. In both these families the other children had the emaciated bodies and limbs, and enlarged heads, which mark the tubercular diathesis. They were taken under a rigid hygienic treatment, coupled with the use of the iodide of iron, iodide of potassa and sarsaparilla, and in a few months I had the pleasure of seeing them strong healthy children. In the treatment of these diseases, remedy after remedy has been tried, and in its turn discarded from its not fulfilling the expectations of the profession; but there still remain a few which bid fair to answer our expectations: these are, cod liver oil, iodine, and its chemical combinations and glycerine.

The cod liver oil is undoubtedly one of our most reliable remedies in consumption, especially when combined with some of the iodides; but its tendency to disagree with delicate stomachs, makes its use impracticable in a large number of cases. In these cases the glycerine is fully indicated, and I think I have seen better effects from it when used as prescribed by Prof. N. S. Davis, in combination with the syrup of iodide of iron, than from the cod oil. Inhalations of iodine, combined sometimes with chloroform, and sometimes with conium, bring the remedy in immediate contact with the diseased lungs, and give relief from the distressing dyspnoea, which is so common a concomitant of tubercular disease of the lungs.

The profession have now, not only the means of forming a correct diagnosis in long diseases, by the means of the stethoscope and percussion, but also of successfully treating, at least in their earlier stages, these most dreaded diseases. The day has passed by when 'consumptives' were restricted to the house, and a starving, debilitating treatment insisted on; we now urge, out of door exercise, plenty of fresh air, and a generous diet, with the use of such remedies as shall restore and invigorate the blood, and thus give tonicity to the system. Perhaps it is as much the fault of the profession itself, as of the people, that the treatment of lung diseases is so much in the hands of the quacks. Carelessness in making examinations of the chest has

much to do with it. Bronchitis and tuberculosis are too often confounded; want of patience in the treatment, is also another cause; and it may be that an imperfect knowledge, or erroneous opinion of the action of medicines is still another cause. Tubercular diseases are as much subject to the action of medicines as any others; and the medical profession suffer their patients to fall into the hands of the brotherhood of quacks, and their own time honored profession to be disgraced, by their carelessness. There are very many in the profession who are turning their attention to these diseases, but it must be acknowledged that a large proportion are folding their hands, and resting contented with 'the good old ways.'

ARTICLE III.—*The Pathology of Milk Sickness, in Parke County, Ind.* By Dr. JOHN PICKARD.

Thinking the pathology of milk sickness, as it appears in Parke County, Ind., taken from observations of citizens who have been acquainted with it for thirty years, might be interesting to some of the readers of the *Journal*, I have prepared the following imperfect article. So little is known by our book making physicians that they give us no information worthy of note; and so contradictory are the investigations of physicians, who have come in contact with it, that it is impossible to come to any definite conclusions, from the reports we find in the journals. The views given in the April No. of the *Journal*, relating to the Etiology of the disease under consideration, very nearly correspond with the following experiments, which conclusively show that it is not vegetable, animal, or malarial. A farmer living about a mile from where the disease is known to exist, allowed his cattle to run out, but they never reached the infested district until the dew evaporated from the vegetation; the result was, his cattle nor his family were ever attacked by the disease; were it a vegetable, the absence of the dew would not destroy its poisonous qualities.

Another family having suffered from its ravages, plowed up a pasture field, dug around the stumps, thoroughly turning all the soil, and sowed the field in grass, upon which they have kept their stock for twenty years, and at no time has milk sick-

ness made its appearance; while on other portions of the farm uncultivated, it is as fatal as ever. Whether the poison is a mineral or a gas is yet to be tested; but I am inclined to believe it a gas much heavier than the atmosphere, consequently resting upon the vegetation; dry weather seems to favor its production. Last season it was prevalent in many districts, where it had not made its appearance for a number of years, but in no instance did it attack animals kept upon cultivated ground. It may be in the water, but we are not acquainted with any district where this has been positively proven. It, however, seems improbable when the disease prevails upon the neplands, and the springs from which the stock drink flow through the bottom lands, and is used there by other stock, yet the disease never makes its appearance among them.

All species of animals are liable to be attacked by milk sickness, the gramnivera, first, and among those the sheep appears to be the most easily affected; the carnivora always obtain it from the flesh of animals that have died with the disease. It is often concentrated in the milk of the cow, and the calf will be attacked when the cow shows no symptoms of disease. Animals well fattened are not liable to be attacked. A farmer in this vicinity, kept his horses on a lot of one acre, and fed them on hay and oats, the disease soon made its appearance among them; he then turned his hogs upon the same lot, fed them all the corn they would eat, and they showed no symptoms of the malady. From the observations and experiments which have been made where the citizens have suffered severely from the loss of property, and the lives of those still dearer to them, we deduce the following conclusions. 1st. Milk sickness is caused by a poison, this poison is generated near the surface of the earth, from some peculiarity in the soil or the soil and atmosphere combined. 2d. That the poison is a mineral or heavy gas, which appears to be produced in the night and destroyed by the rays of the sun. 3d. A thorough cultivation of the soil will destroy it. 4th. That it may be communicated from one animal to another by the flesh or milk. And 5th, that oleaginous substances act as a preventive, and will often cure animals affected with the disease. There is no difficulty in the diagnosis, the patient

invariably complains of great weakness, inability to perform labor, a small amount of exercise produces trembling and fainting sensations; as the disease advances, vomiting, and obstinate costiveness are invariable accompaniments, and during the whole time a peculiar odor pervades the room, unlike anything we have ever met with.

The treatment of milk sickness is simple; we have previously stated, that oleaginous substances are preventives, and we have found no remedy so efficient as Aleum Ricini, by the stomach, if possible, if not give enemata. Apply sinapisms to the stomach, give cooling mucilaginous drinks, overcome the costiveness as soon as the nature of the case will admit, and you have conquered the main obstacle to successful cure.

ARTICLE IV.—*Ophthalmia, Ulceration of the Cornea, being the Substance of a Clinical Lecture to the class attending the Mercy Hospital, delivered in Jan. 1857.* By N. S. DAVIS, M.D., Prof. of Prin. and Practice of Med. and Clin. Med.

Gentlemen—I shall direct your attention this morning chiefly to some cases of disease of the eye. For though this class of diseases is generally included in the department of surgery, and you doubtless receive ample instruction in relation to it, in the Marine Hospital, by my distinguished colleague, prof. Brainard, yet the cases occurring in private practice are so frequent, and of so much importance, that I shall not hesitate to call your attention frequently to such as may chance to come into my department of this institution.

Judging from what has fallen under my own observation during the last few years, I am led to think that there is very great want of attention to, and accurate knowledge of, the different forms of ophthalmia, by the great majority of practitioners of medicine. I fear that very many content themselves with the general diagnosis of "*sore eyes*;" and when they have prescribed blue pill, and epsom salts, internally, with blisters externally, and an eye-water of nitrate of silver, or sulphate of zinc, they have exhausted their store of remedial agents. It seems to be too often forgotten that the eye, with its immediate appendages, includes a large number of distinct anatomical

structures, each having its own physiological relations, and amenable to a variety of diseases arising from different causes and leading to equally diverse results. The muciperous glands and follicles in the tarsus of the eye-lids, the conjunctiva, the cornea, the sclerotica, the iris, the ciliary processes, the retina, &c., are all anatomically and physiologically distinct structures, and liable to be separately attacked by disease, just as much as are the pleura, the parenchyma of the lung, and the bronchial mucous membrane. And not only so, but some of these delicate structures are subject to diseases specifically as different from each other, as are acute pneumonia and tubercular phthisis. For proof of this we need only to compare the acute conjunctivitis or common catarrhal ophthalmia with the irritable ulcer in the cornea; or rheumatic or syphilitic iritis with that acute and severe conjunctival and corneitic inflammation known by the name of Purulent or Egyptian Ophthalmia. The particular cases to which I shall direct your attention this morning, illustrate one of the most important diseases to which the eye is subject, and which is of sufficiently frequent occurrence in practice to command your most careful attention. The patients are these three little girls, all belonging to the Orphan Asylum, and consequently representatives of the poorer classes. Two of them, you notice, are sitting with their faces turned from the light, their chins constantly pressed down upon the sternum, and their eyes firmly closed. I turn them round, I wish you to note their physiognomy, for it is highly expressive and characteristic.

So soon as the light of the window strikes the face, the chin is not only depressed, but the angles of the mouth are drawn down, the eye-brow strongly knit or corrugated, the eye-lids firmly closed, and the face pale, together constituting a position and expression or physiognomy very striking, and seldom seen except in connection with the variety of disease which we have before us. All that is peculiar, however, in the expression of countenance, is derived directly from the extreme sensitiveness of the eyes to the impression of light. This sensitiveness to light is worthy of your attention. It is often so great that any attempt to examine the eye-ball causes streams of tears to flow

down over the cheeks, and the most acute suffering to the patient. Little children like the youngest of these will often sit in a dark corner of the room, their faces to the wall, and the chin depressed, and amuse themselves with play-things for hours very cheerfully, while any attempt to bring them to the ordinary light of the windows will be resisted with all the strength they possess.

The same acute sensitiveness causes them when lying down to constantly turn the face to the pillow so long as any light remains in the room. This extreme sensitiveness accompanies the irritable or scrofulous variety of inflammation, whether it is located in the cornea, ciliary processes, iris, or even the follicles and glands in the tarsus of the eye-lids; and is always accompanied by a profuse flow of tears. I am satisfied that this sensitiveness does not depend so much on a morbid condition of the optic nerve or retina as on the sensitive branches of the fifth pair, which are more directly involved in the inflamed textures. This patient, which we shall call Case I., is a girl about 10 years of age. I learn by inquiry that she has had what are usually called "*weak eyes*," for more than a year. They are denominated *weak* because the patient cannot bear without inconvenience exposure to clear sun-light, or to the direct light of a lamp; and because the eye-lids are almost always agglutinated or stuck together on awakening in the morning. If you step forward two or three at a time, and examine closely, you will readily see the nature and extent of the local difficulty.

The tarsus of the lids, especially the upper ones, are thickened, redder than natural, and the outer edge more or less covered with a concrete tenacious substance entangled in the eye-lashes, and which is being constantly secreted by the diseased glands and follicles of the tarsus. There is no redness or appearance of disease in any part of the eye-ball; neither is the conjunctiva lining the eye-lids more than very slightly altered from the natural condition. Hence I may say that the local evidences of disease are limited to the bulbs of the eye-lashes and the follicles contained in the tarsus of the eye-lids. This affection is generally chronic and often of long duration. In many

instances it seems to remain nearly stationary for years, occasioning only a swollen and uncleanly appearance of the edges of the eye-lids, and a morbid sensibility of the eye to bright light. But in a majority of cases the morbid changes slowly progress until results of a far more serious character are produced. Slight causes induce frequent exacerbations of inflammation in the glands of the tarsus. This inflammation is very apt to assume the pustular form, constituting what is familiarly denominated the *sty*. The edges of the lids become constantly more thickened, reder, and more destitute of eye-lashes; causing them to look denuded.

The bulbs of the lashes being involved in the disease, such of the latter as do not fall out, grow very irregular and imperfect. The edges of the lids sometimes become everted, constituting the *Ectropion* of your books; more frequently they are inverted (*Entropion*), and the stunted, irregular eye-lashes are brought more or less in contact with the cornea, irritating it and inducing sooner or later partial opacity with dimness of vision. Such are the general tendencies and results of this apparently simple variety of disease. In the case before us it is yet in its early stage, there being no loss of eye-lashes or mechanical irritation of the cornea. The disease is met with at all periods of life, though more frequently in childhood.

Two classes of persons are peculiarly liable to it, namely, the scrofulous and the intemperate. You will readily infer from the age, sex, and delicacy of features presented by this patient, that she belongs distinctly to the former class. Of the treatment I shall speak after examining the remaining cases.

CASE II. This patient is a little girl aged only four years. As I raise her chin from the breast and bring her face fully into view, you see her eyes firmly closed, the eye-brows knit, the edges of the lids red and swollen, and an abundant mucopurulent matter running from the inner angle over the cheeks. As you approach and examine more minutely, you see the lower lid of the left eye much excoriated and inflamed on its outer surface, and as I open the lids you see what may appear at first to be a small whitish or opaque spot on the cornea a little above the center. On more careful examination, while the

eye-ball turns in different directions, you see that spot to be a simple excavated ulcer; and that on the schlerotic coat there is a zone or belt of intense redness, one or two lines in width, immediately encircling the margin of the upper half of the cornea. A few red vessels are obscurely seen penetrating a little way into the cornea, while on the other side of the red zone, the redness rapidly diminishes as we recede from the cornea. You find here no general conjunctival redness, thickening, or granulation. The right eye of this patient is affected in precisely the same manner as the left, though less severely, and the cornea not yet presenting any appearances of ulceration. In this patient, then, we have the same affection of the tarsus of the eye-lids as in Case I. though in a more acute form; and in addition a very severe and important ulcerative inflammation of the cornea.

CASE III. This patient, a girl aged about seven years, presents you the same striking physiognomy as the one just examined. There is the same corrugation of the eye-brow, firm closure of the eye-lids, depression of the angles of the mouth, and persistent tendency to hold the face downward. But you see here no affection of the tarsus of the eye-lids. The latter are healthy both without and within. But as I force open the lids, you see here a condition of the cornea very similar to that in Case II. There is an excavated ulcer of considerable size directly over the pupil, another smaller one near the upper and outer margin of the cornea, and the same zone or belt of redness on the schlerotic coat encircling in this case the entire base of the cornea. The cornea of the other eye is affected in a similar manner; but as all exposures to the direct light are very painful, causing as you see here the most profuse flow of tears, we will not ask you to examine it. Having each of you carefully examined these cases, I desire now to impress upon your minds some of their characteristic or diagnostic features, their tendencies, and final results. You will then easily comprehend the appropriate treatment. A moment's reflection will show you that the most characteristic symptoms are, the position and physiognomy; the careful avoidance of light; the profuse flow of tears, mingled with only

a small proportion of mucus; the location and limited extent of the redness, with more or less alteration in the cornea; and the chronic or protracted continuance of the disease. From ordinary catarrhal ophthalmia it differs in almost every particular. In the latter the whole conjunctiva is red and more or less swollen, instead of presenting a limited zone of redness immediately around the base or circumference of the cornea as in these cases. Instead of great intolerance of light with profuse flow of tears, conjunctivitis is accompanied by a simple increased sensibility, a feeling of heat and roughness as though some foreign substance was in the eye, and after the first two or three days, a moderate discharge of muco-purulent matter; and the cornea, if affected at all, only becomes so secondarily after the conjunctiva lining the eye-lids has become thick and granular. From that severe and destructive form of inflammation termed Egyptian or Purulent Ophthalmia, the cases before us differ still more widely. The former always commences suddenly, and progresses so rapidly that in four days the conjunctiva and eye-lids are swollen to such an extent as to entirely close the eye and fill up the circumference of the orbit, and is accompanied by great pain and symptomatic fever. The discharge too, after the two first days, is copious and almost entirely purulent.

None of these symptoms mark the early stage of the cases you have been examining. These three cases belong to the class of Irritable or Scrofulous inflammations; the first being limited to the tarsus of the eye-lids, the second involving the tarsi and cornea both, and the third the cornea alone. Like most other scrofulous affections, they generally commence insidiously, progress slowly and persistently, and if uncontrolled by proper treatment, generally end in alteration or destruction of the tissue affected. The changes wrought by the disease in the tarsus of the lids, I have already detailed. Located in the cornea, as in Cases II. and III., the constant tendency is to a slow ulceration, by which the texture of the cornea is destroyed in one or more places. Commencing on the surface by what appears to be a small whitish spot, often not half as large as a pin's head, the ulcer gradually extends

both in circumference and depth, until it sometimes penetrates all the layers of the cornea and allows the delicate lining of the anterior chamber to protrude. Examined carelessly, these ulcers are not unfrequently regarded as mere *films* or partial opacities on the surface of the cornea, an error of much practical importance; and one that may be easily avoided by examining carefully while the eye-ball is allowed to move in different directions so as to reflect the rays of light at different angles to the eye of the examiner. Properly examined, they will always be found, however small, to be excavated, that is, accompanied by positive loss of substance. And often there is so little deposit of opaque matter in the diseased part, that the ulcer itself remains a long time nearly transparent.

The prognosis in the variety of Ophthalmia illustrated by these cases is generally favorable. For though slow in its progress, often persisting for many months, the disease will almost always yield to appropriate treatment. Occasionally, however, the cicatrix left after the ulcer is healed, is so large and opaque as to seriously obstruct the entrance of light into the pupil of the eye, and vision consequently remains very imperfect. The indications for treatment in this variety of disease cannot be studied too carefully, for I think they are more frequently mistaken than in any other form of Ophthalmia.

I have more than once seen patients of this class with pale faces, soft flaccid muscles, and all the marks of positive anemia or deficient nutrition, subjected to the influences of dark rooms, blue pills, epsom salts, and blisters; while to the extremely sensitive eyes were applied daily, weak solutions of nitrate of silver, sulphate of zinc, &c., and sometimes the solid caustic to the ulcers. So far as I have been able to observe, such treatment is not only founded on wrong ideas in relation to the nature of the disease and the general condition of the patient, but is positively injurious in its effects.

The truth is, that the whole class of scrofulous, irritable, or ulcerative inflammations of the cornea, of which the cases before you are good representatives, are connected with and dependent on, a debilitated and depraved condition of the system. And the first and most important indication for treat-

ment is to correct this general pathological condition, by means which will improve functional action, increase the tone of the solids, and improve the quality of the fluids. The second indication is to allay the morbid sensitiveness of the eye, and excite a more healthy reparative action in the parts affected with local disease. To accomplish the first, we must rely chiefly on a nutritious diet and the judicious use of tonic and alterative remedies. The best articles of food are milk, tenderly cooked meat, light stale bread, potatoes, rice, and ripe fruits. The best drink is water, though tea, coffee, and chocolate may be allowed very moderately. During the last ten years I have seen and treated many such cases as we have before us this morning; and of all the internal remedies I have used, none have so uniformly and promptly arrested the progress of the disease as the union of the bi-chloride of mercury in small doses with the cinchonæ. And I will prescribe for these children, this morning, as follows:

R. Bi-Chloride Hydrarg. - - - 1 gr.
Tinct. Cinchonæ, - - - ʒii.

Mix, and give the youngest 20 drops in a table spoonful of sweetened water three times a day. To the two older ones give 30 drops in the same manner. At the same time, in fulfilment of the second indication, I will direct for local application the following, viz:

R. Sulph. Morph. - - - 4 gra.
Water, - - - ʒi.

Mix, and drop two or three drops into each eye three or four times a day. Also,

R. Ammoniated Hydrarg. - - - 15 gr.
Simple Cerate, - - - ʒss.

Mix very thoroughly, and apply it to the edges of the eye-lids from one angle to the other, every night before the patient goes to sleep.

These remedies will probably need to be continued with very little change from ten to twenty days. The patients will not get well in that time, but you will be able to notice important changes, which will often indicate the necessity of changing

the remedial agents. In the length of time I have mentioned, we generally find the sensitiveness of the eye much diminished, the tears flow much less freely, the red zone around the cornea is less intense, and the ulcers have visibly diminished in size. If, as is often the case, the patients exhibit also an increase of strength, flesh, and cheerfulness, with a regular and healthful condition of the alimentary canal, no change need be made except to diminish the doses of the bi-chloride and tinct. of cinchonæ, first to twice a day and subsequently to once, at which rate it may be continued until the patients are quite well. In many cases, however, while the improvements which I have mentioned take place in the eyes, the medicine induces a slight irritating effect on the mucous surfaces, characterized by occasional griping pains in the abdomen, a slightly redened and tender appearance of the edges of the tongue and sometimes of the whole mouth, peevishness in children, and feelings of languor and discomfort in the adult. When such symptoms occur during the use of the mercurial preparations they should never be disregarded, but the remedy should be immediately discontinued and something more tonic and less liable to irritate the mucous membranes substituted in its place. For this purpose I have generally resorted to one or the other of the following formulæ:

R. Glycerine, - - - - ʒii.
Syrup of Iodide of Iron, - - ʒiii.

Mix, give at each meal-time from 20 to 60 drops, according to the age of the patient; or,

R Tinct. Cinchonæ, - - - - ʒii.
Iodide of Potassa, - - - ʒi.

Mix, dose the same as the preceding; or,

R. Cod Liver Oil, - - - ʒjss.
Syrup of Iodide of Iron, - - ʒiii.
Pulv. G. Arabac, } aa ʒiii.
White Sugar, }
Rub together and add Mint Water, ʒjss.

Mix, and give from ʒss. to ʒii. three times a day, always shaking the vial before the dose is poured out.

Either of these preparations will generally produce the desired effect, by improving rapidly the nutritive functions and general

health of the patients; and often nothing else is required but a continuance of the same local remedies as before and the cure will be completed in from three to six weeks. In some patients, however, the scrofulous constitution is more strongly developed, and the treatment must be continued several months. In such I have found it of great advantage to return to the use of the bi-chloride of mercury and tincture of cinchonæ every two or three weeks, continuing it each time from six to ten days.

You will occasionally meet with patients who cannot take the bi-chloride of mercury in even so minute doses without inducing undue irritation of the mucous membrane of the alimentary canal. In such cases I have found the best substitute to consist of proto-iodide of mercury in doses of one-eighth of a grain to one grain, according to the age of the patient, and combined with Dover's Powder sufficient to produce a gentle anodyne influence.

In very debilitated subjects I have added to this powder from $\frac{1}{4}$ to 1gr. of sulphate of quinine or sulphate of cinchonæ.

While using the proto-iodide of mercury the patient must be watched quite as carefully as though the bi-chloride was the remedy given, and it should always be interrupted or discontinued before the slightest symptoms of salivation are induced.

For local application to this class of sore eyes, I have only mentioned the solution of morphine to the eye-ball and a mild mercurial ointment to the tarsus of the lids. For the morphine, however, we may substitute any of the strong narcotic vegetable alkloids, such as conia, atropia, &c.; the object being to directly lessen the irritability of the textures and the extreme morbid sensitiveness of the nervous filliments connected with them. But, gentlemen, the present clinque hour has expired, and I cannot detain you longer this morning.

You will have an opportunity of seeing these cases again in connection with three or four others, after a few days, when some other points relative to the treatment will be more fully discussed.

SELECTIONS.

Dr. Edward Brown-Sequard's Experimental and Clinical Researches, applied to Physiology and Pathology.

EPILEPSY—(Continued).

§ XIII. My experiments upon animals, compared with cases of epilepsy observed in man, throw a great deal of light on what we might call the physiology of epilepsy, that is, upon what concerns the etiology, the seat, and what is vaguely called the nature of this disease. It is easy to show that one or the other of the two series of facts we have to compare, if not both, are in opposition with the various doctrines concerning the production and the seat of epilepsy. A short critical examination of these doctrines will prove the correctness of this assertion.

The time has passed away when men of talent were tempted to place the seat of epilepsy in the pituitary body (Joseph Wenzel), in the pineal gland (Greding), or in the spinal cord (Esquirol Reid). The injuries or organic alterations of these parts, as well as of other parts of the nervous system, may be either the cause or an effect of epilepsy, but none of these parts can be considered as the *essential seat* of this affection. The numerous cases of co-existence of epilepsy and of a disease of the pituitary body, related by Joseph Wenzel (*Beobachtungen ueber den Hirnanhang fallsuichtiger Personen*. Edited by Carl Wenzel, Mainz, 1810), have lost their apparent importance since it has been shown by Romberg (*loco cit.*, p. 685) and others (Rokitansky, Engel and Sieveking, in Handfield Jones's and Sieveking's *Manual of Pathological Anatomy*, 1854, p. 267, *Amer. Ed.*) that the pituitary body may be altered although epilepsy does not exist, and that this neurosis may exist without any apparent alteration in this small organ. There is no part of the nervous centres about which the same argument could not be used.

Many writers have asserted that epilepsy must depend upon a disease of the brain (organic or not), on account of the existence of the cerebral symptoms. It is useless to speak of the authors who have been or who still are unacquainted with the phenomena of reflex actions; I will merely refer for their views to the works of Portal (*loco cit.*, p. 143-155) and Delasiauve (*loco cit.*, p. 27-35). But many physicians of talent, knowing

very well what relates to the reflex actions, have considered the brain as the essential seat of epilepsy. Thus, this affection is placed among the so-called cerebral convulsions by very able pathologists, such as Romberg (*loco cit.*), Spiess (*Krankhafte Stor. des Nervensystems* in Wagner's *Handwörterbuch der Physiol.*, vol. iii., 2d part, 1846, p. 188), Russell Reynolds (*The Diagnosis of Diseases of the Brain, Spinal Cord, &c.*, 1855, pp. 143 and 174), and others. According to Dr. John Simon, "the intellectual changes which precede, accompany or follow the progress of the disease, its concurrence with insanity, and its tendency to dementia, further mark the convoluted surface of the hemispheres as the primary seat of the morbid process" (*General Pathology, &c.*, 1852, p. 152, *Amer. Ed.*)

The modern physiologists agree in admitting that the brain proper (the cerebral lobes) cannot give rise to convulsions when it is irritated, in animals. Surgeons have sometimes had an opportunity of ascertaining that, in man also, the brain may be cut without producing convulsions. But these facts merely prove that usually the brain proper cannot be excited by our means of excitation. They do not prove that it cannot be irritated by other kinds of irritation. The cerebral lobes, as being the seat of the will, are certainly connected with muscles and can produce contractions in them, as our voluntary movements constantly prove. We think convulsions may result from kinds of irritation (as that of a poison in the blood, for instance) different from those which we usually employ in our experiments. On another side it may be that alterations in the nutrition of the brain, and other causes, produce a change in the vital properties of this organ, or rather give it something that normally it does not possess, viz., the property of causing convulsions when it is irritated. That such a change in the vital powers of the cerebral lobes is possible, we are led to admit, as we know that other parts of the nervous system may acquire vital properties that they have not in their normal state. For instance, some parts of the sympathetic nerve seem to be deprived of sensibility, but inflammation renders them very sensitive; the nerves of tendons seem to be without sensibility, but inflammation renders them evidently sensitive, as has been definitely proved by the well-devised experiments of Prof. Flourens (*Comptes Rendus des Seances de l'Academie des Sciences*, 1856, vol. xliii., p. 639). I might give also as a striking instance of a change in the vital properties of a part of the nervous system, what occurs to the cutaneous ramifications of certain branches of nerves in the face and neck, after an injury to the spinal cord in animals.

I must now say that, although I admit the possibility of the production of convulsions by an irritation of the cerebral lobes, I do not think it is proved that these parts of the nervous system have actually caused convulsions. The facts mentioned by Romberg (*loco cit.*, p. 625-27) do not furnish such a proof. They may be explained by admitting that the convulsions depended upon either an excitation of the sensitive nerves of the meninges, or upon pressure on the parts of the encephalon which are known to be excitable, or upon the disturbance of circulation and nutrition in the excitable parts of the encephalon. The case of a child *Pathol. and Pract. Researches on Diseases of the Brain*, by Abercrombie, 4th Edit., 1845, p. 57), upon whose anterior fontanelle pressure determined convulsions, and the experiments of Portal (*loco cit.*, p. 149), which gave similar results, cannot prove anything, because pressure upon any part of the brain through a small opening in the cranium, acts upon the whole of the encephalon.

Until it is proved that the cerebral lobes have directly caused convulsions, we are not entitled to say that the seat of epilepsy is in them. If it is argued that the brain proper must be the seat of this affection because an idea or a remembrance, or a smell or the sight of certain things, may induce a fit, we answer that these causes of convulsions act in producing an emotion, and that emotions have their seat in the pons varolii and the medulla oblongata, and not in the brain. If it is said that the loss of consciousness implies that the cerebral lobes have something to do with epilepsy, we certainly do not deny it; but what is the relation between these lobes and epileptic fits? How can convulsions, *i. e.*, actions the existence of which imply that a great amount of nervous power is employed—how can they be produced by an organ which has lost its principal function? How can this organ be so active in the production of convulsions just at the time it loses its activity as the organ of volition and perception? How can we admit that an organ assumes actions which it is not known to possess, at the same time that it loses its well-known actions?

Those physicians who maintain that the brain is the primary or essential seat of epilepsy, have too much neglected these difficulties and contradictions. Their only argument consists in saying that it *must* be so because the brain is affected; but we might employ a similar argument to say that many other parts of the nervous centres are the seats of epilepsy because they are evidently affected, and as much as the brain. It is interesting to remark that it is just the same argument that Dr. Marshall Hall employs to show that the seat of this affection is in

what he calls the *true* spinal cord. Such arguments in the end amount to simply an assertion like the following: it is so, not because it is proved to be so, or because the facts agree in allowing us to admit that it is so, but because we cannot explain it otherwise. An argument of this kind is never a decisive one; but it has no value, and ought not to be employed, when the facts are not explained by the hypothesis considered as the only possible explanation, and still more (as is the case with the supposition that the seat of epilepsy is in the brain proper) when there are facts in opposition to the proposed explanation.

We will try to show hereafter that the loss of consciousness in epilepsy may be explained otherwise than by admitting that the brain is the seat of this affection, and that the loss of consciousness, whether it exists alone or with convulsions, may be due to an action beginning elsewhere than in the brain.

As regards the state of the mind and of the senses after an attack of epilepsy, it is not and cannot be a proof that the seat of this disease is in the brain, as those disturbed states may result from various circumstances existing during a fit.

We must now say a few words of a theory which pretends to solve the difficulty above exposed, concerning the coincidence of the loss of action of the brain and of an increased muscular action. The estimable author of a singular but interesting work (*Epilepsy, and other affections of the nervous system which are marked by tremor, convulsion, or spasm, &c.*, 1854), Dr. C. B. Radcliffe, in this book and in his lectures on Epilepsy (*Medical Times and Gazette*, March and April, 1856), grounds an explanation of this difficulty upon the supposed fact that muscular contraction does not depend upon a stimulus by the nervous system, but upon the cessation of all stimulus. Dr. Radcliffe, after Duges and others, thinks that muscular contraction is a purely physical phenomenon, dependent on ordinary molecular attraction when the muscle is *not* stimulated. If the muscles are at rest, it is because an excitation comes upon them, preventing the molecular attraction from producing contraction. If a voluntary movement takes place, it is because the will has suppressed the nervous action which prevented contraction. In a fit of epilepsy, convulsions take place, together with the loss of consciousness, because the brain and other parts of the nervous centres lose their powers at the same time, and stimuli being withdrawn from the muscles, they are left to the action of molecular attraction, and therefore convulsions are produced. It is useless to discuss a theory like this, which is in opposition to almost all the known and the most positive facts of physiology and pathology. I will merely say that if the theory were

true, we should always see convulsions in paralyzed muscles, and also after death at the time when nerves lose their power upon muscles.

According to another theory, which certainly deserves much more attention than the preceding, epilepsy depends upon changes taking place in the circulation of blood in the brain proper, and in the other parts of the encephalon. The germ of this theory may be found in the works of many writers, and particularly in the remarkable book of Prichard (*A Treatise on Diseases of the Nervous System*, part 1st, 1822), but Henle has done so much for it that he may be considered as its originator. In his admirable work (*Handbuch der Rationelle Pathologie*, vol. ii., 1st part, 1855, 2d ed., p. 181-3 and p. 403; and 2d part, 1854, p. 46) he tries to show that there are two kinds of epilepsy, one attended with plethora, the other with anæmia. In both there is as a cause of convulsions, a pressure by accumulated blood in the vessels of the base of the encephalon. We may understand easily the congestion of the brain in plethora, but it is not so as regards anæmia. Henle explains it in this last case, in admitting that when anæmia goes on increasing, the blood-vessels of the upper parts of the encephalon becoming empty, the others necessarily become more filled, on account of the impossibility of the cranio-spinal cavity containing less fluid (an impossibility well established by Kellie, Abercrombie, J. Reid and others). As regards the loss of consciousness, it is attributed to an excess of blood pressing upon the brain proper, in plethoric epilepsy, and to the diminution of blood in this organ, in anæmic epilepsy.

Although we think that many thanks are due to Henle for the efforts he has made to show the relations between the phenomena of epilepsy and the state of the blood-vessels of the various parts of the encephalon, we cannot adopt his theory.

In the first place, if a congestion in the two distinct parts of the encephalon (the brain proper and the basis of the encephalon) was sufficient to produce epilepsy, this disease would be much more frequent than it is, and we should not see so often hyperæmia of the encephalon without convulsive fits, and nevertheless powerful enough to cause paralysis, delirium or coma. The great work of Prof. Andral (*Clinique Medicale*, 4th ed., vol. v., 1840, p. 217-292) and almost all the treatises on intermittent fever, and particularly those of Bailly and Maillot, afford decisive proofs of the frequency of cases of encephalic congestion without epilepsy. Henle himself has been obliged to say that *individual disposition* is necessary for the production of this convulsive affection.

In the second place, we object to the theory of the learned German physician, because he gives no proof that the mere mechanical action (pressure) due to accumulated blood in the vessels of the basis of the encephalon, is sufficient to produce convulsions.

In the third place, Henle does not give any clear reason why, in the anæmic epilepsy, the blood-vessels of the brain proper contract, while those of the basis do not; and besides, except concerning lead disease, he does not say what excites contraction in them.

Theories of epilepsy, entirely at variance with the preceding, have been proposed. In the last century, Saillant (*Exper. sur des Animaux pour decouvrir le siege et la cause prochaine de l'épilepsie*, in *Hist. de la Soc. Royale de Medecine*, in 1782 and 1783, p. 88-89), without giving a theory of epilepsy, concluded, from some experiments, that it is easier to cause epileptic seizures in producing alterations in the blood than by irritating the nerves or the brain. Had galvanism been known at the time of the researches of Saillant, and had he employed it to irritate the nervous centres, he would have seen much more violent and lasting convulsions than those he observed after having altered the blood by injections of air, &c. His experiments only show that convulsions may be due to altered blood, a fact well known already before his researches.

One of the most eminent medical writers of our times, Dr. R. B. Todd, has recently proposed a theory of epilepsy, which I must discuss at length, on account of the importance it should have if it were true, and of the value that belongs, necessarily, to any opinion held by such an ingenious and experienced physician.

Dr. Todd says, "I hold that the peculiar features of an epileptic seizure are due to the gradual accumulation of a morbid material in the blood, until it reaches such an amount that it operates upon the brain in, as it were, an explosive manner; in other words, the influence of this morbid matter, when in sufficient quantity, excites a highly polarized state of the brain, or of certain parts of it, and these discharge their nervous power upon certain other parts of the cerebro-spinal centre, in such a way as to give rise to the phenomena of the fit."

Dr. Todd then proceeds to say, that a very analogous effect is observed when strychnine is given to a cold-blooded animal. This drug may be administered in very minute quantities for some time without producing any sensible effect; but when the quantity has accumulated in the system up to a certain point, then the smallest increase of the dose will immediately give rise

to the so-well-known peculiar convulsive phenomena, observed in this kind of poisoning. Dr. Todd adds: "This, then, is the humoral theory of epilepsy. It assumes that the essential derangement of health consists in the generation of a morbid matter, which affects the blood, and it supposes that this morbid matter has a special affinity for the brain or for certain parts of it, as the strychnine, in the case just cited, exercises a special affinity for the spinal cord. The source of this morbid matter is probably in the nervous system, it may be in the brain itself. It may owe its origin to a disturbed nutrition—an imperfect secondary assimilation of that organ—and in its turn it will create additional disturbances in the functions and the nutrition of the brain."

"According to the humoral theory, the variety in the nature and severity of the fits depends on the quantity of the poisonous or morbid material, and on the part of the brain which it chiefly or primarily affects. If it affect primarily the hemispheres, and spend itself, as it were, on them alone, you have only the epileptic vertigo. If it affect primarily the region of the quadrigeminal bodies, or if the affection of the hemispheres extend to that region, then you have the epileptic fit fully developed."—(*Medical Times and Gazette*, Aug. 5, 1854, p. 129.)

This theory is nothing but an ingenious hypothesis which Dr. Todd proposes, without trying to prove it. The only reason he adduces to support his theory is, that in the renal epilepsy there is very likely a poison in the blood, but as regards the other kinds of this convulsive affection, he does not say any thing which may lead to the admittance of his hypothesis. Feeling that he had no proof of the correctness of his views, he says: "To give a more definite character to the humoral theory, we need to discover a morbid matter in the blood, in variable proportions, in every case of epilepsy. This desideratum has, as yet, been only partially obtained." Dr. Todd alludes here to the influence of the accumulation of urea in blood, in the cases of renal epilepsy. Leaving aside, for a moment, this kind of epilepsy, we may say against the humoral theory of the eminent British physician: 1st, That we do not know any fact in favor of it; 2d, That there are a great many facts in opposition to it.

Not only we do not know any fact favorable to this theory, but its author seems to be like ourself, in this respect, as he does not relate a single one. We have never read or heard that a poison produced in the brain, has been found in the blood of epileptics, and we cannot imagine on what ground a fact of this kind is considered as probable by the author of the humoral theory or rather hypothesis.

To establish the humoral hypothesis on a solid basis, it would be necessary to show: 1st, That there is always a poison in the blood of all epileptics; 2d, That this poison gradually accumulates in the blood until its quantity has become considerable enough to produce the phenomena of the fit; 3d, That during or after a fit, this quantity diminishes (because if it were not so, the fit would continue or come again and again, after a very short time); 4th, That the nature of the poison varies, so that it acts either on the brain proper alone (producing a mere vertigo,) or on the other parts of the cerebro-spinal centre alone, or on the whole of this centre at once; 5th, That this poison has quite a different influence on the brain proper and on the other parts of the cerebro-spinal centre, destroying the actions of the former and increasing excessively the actions of the latter.

Not only none of these points have been made out, but it seems that no attempt has been made in the way of a demonstration in this respect.

That there is a poison in the blood of epileptics is fact a which, nevertheless, is possible, as there are substances in the blood of every man, healthy or epileptic, which by a transformation or by accumulation, may act as poisons, and be the cause of many of the phenomena of an epileptic seizure; but it is not known whether the quantity or quality of these substances is changed in epileptics, just before the fits.

There are many facts which are in direct opposition with the humoral theory of epilepsy. Certainly it is so for all the cases in which a ligature around a limb or one of its parts, has prevented a fit, and also for the cases in which epilepsy has been cured by the section of a nerve, by an amputation, by the extirpation of a tumor, a tooth or a foreign body, or by the expulsion of calculi, of worms,* &c. If, in all these cases, there was, as the cause of the phenomena of the seizure, a peculiar influence of some poisonous matter on the encephalon, instead of an irritation springing from certain peripheric nerves, the means mentioned would not prevent the fits, and, still less, effect a complete cure of the disease. If we were to admit that it is a poison which causes the phenomena of the seizure in these cases, we should have to admit also that this poison

* A curious case of hystero-epilepsy, due to larvæ in the frontal sinuses, has been recently published by Messrs. Dumenil and Legrand Dussaule. These larvæ, which belonged to five different species, were expelled by the nose, and after their expulsion the patient, who had had violent convulsions for many months, was cured. (See the very useful report on the progress of medicine and surgery, entitled *Annuaire des Sciences Medicales*, par le Dr. Lorain, revu par le Dr. Ch. Robin. Paris. 1856. p. 151.)

acts on the peripheric parts of some nerves, and not on the encephalon. But there is no more ground for this last hypothesis than for the preceding, because the presence of a poison in the blood is a mere supposition. Besides, if this would be a reality instead of a gratuitous supposition, it would remain to be explained why this poison does not act in some way or other after the section of a nerve, or the extirpation of a tooth, &c.

The humoral theory is in opposition with many other facts, among which are those proving that an emotion or various other moral causes may produce a fit of epilepsy. For cases showing, without any doubt, the influence of these causes and their relative frequency, I will refer to the works of Delasiauve (*Loc. cit.*, p. 219-22) and Moreau de Tours (*De l'étoil. de l'épil. et des indications*, &c., in *Mem. de l'Acad. Imper. de Medecine*. 1854. Vol. XVIII. p. 1, *et seq.*)

The facts we have related in § XI., to prove that seizures of epilepsy are sometimes produced by a mere pressure upon or by galvanization of a small part of the skin, are also in direct opposition to the humoral theory. How could a pressure upon the skin produce a fit, every time it is made, if the fits were due only to a peculiar influence of a poison on the encephalon?

The following facts resemble, in many respects, those I have mentioned in § XI., and they also are in complete opposition to the humoral theory: they have been collected by Delasiauve (*loco cit.*, p. 137-38), to show the influence of certain circumstances on some epileptics: 1. A patient could not smell hemp, without having a fit.—(*Tissot.*) 2. In another, the same effect was produced by the slightest odor, even that of broth or of a medicine.—(*Schubart.*) 3. A child had a fit every time he saw something red.—(*Buchner, Tissot.*) 4. A child had an epileptic seizure as often as he heard a dog bark.—(*Van Swieten.*) 5. The idea of phantoms, which had frightened a boy, when quite young, was sufficient to cause the fits.—(*Maisonneuve.*) 6. In a case, the remembrance of a fright was enough to produce the seizure.—(*Van Swieten.*) 7. Any word of blame, addressed to two patients, gave them a fit.—(*Delasiauve.*)

The cases in which a physical impression has been the cause of the first attack of epilepsy, may be regarded as less valuable against the humoral hypothesis, than the preceding facts in which, at each return of the cause (either moral or physical,) a seizure took place. It might be said to diminish their value that the physical impression occurred just at the time when the poison of the blood was beginning to act upon the brain. But in ad-

mitting that such a coincidence has sometimes taken place, we certainly cannot imagine that *in all the very numerous cases of epilepsy*, in which the first fit has occurred immediately after a physical impression, such a coincidence has existed. The works of the principal writers on epilepsy, Van Swieten, Tissot, Maisonneuve, Cooke, Esquirol, Portal, Copland, Herpin, Delasiauve, Moreau, (de Tours), &c., contain too many of such facts for our dreaming of the possibility of explaining the production of epileptic fits, immediately after a physical impression, without attributing at least a share in the causation of these fits, to this impression. The *post hoc, propter hoc*, is a sound reasoning when the number of facts is so extremely considerable as it is here.

In my animals, as I have already said many times, the fits are produced at every time the skin of certain parts of the neck and face is pinched.* As the seizure in these animals takes place when we desire it, we have there a decided proof that, at least in them, fits may be produced otherwise than by the irritation of a poison on the encephalon.

It results from this exposition of facts that, in animals and in man, fits of epilepsy cannot be considered as always due to the influence of a poisonous matter upon the encephalon. We would not say, however, that they are never caused by a poison in the blood. It seems, on the contrary, not only when there is a deficiency in the urinary secretion, but also when the elements of bile are in great quantity in the blood, or when the functions of the supra-renal capsules are suppressed, that epileptiform seizures take place, owing to the irritation that certain substances, contained in the blood, exert upon some parts of the nervous system. When there is not a free menstruation, and perhaps, also, when the secretion of the skin is stopped, it seems probable that a poisonous matter remains in the blood, where it accumulates, and that it participates in the causation of epileptic fits.* Besides, it is certain that some poisons, and particularly lead, are able to cause epilepsy. But many questions are still to be solved, concerning the *modus operandi* of poisons which cause convulsions. I have shown elsewhere (*Experimental Researches applied to Physiol. and*

* In October, 1855, I had the satisfaction of showing this experiment to Dr. R. B. Todd himself, in presence of many distinguished physicians, among whom were W. Bowman, Prof. L. Beale, Dr. R. H. Semple, and Dr. R. Druitt.

* Very judicious remarks on the subject of the influence of poisonous matter contained in blood, in eruptive diseases, in jaundice, in deranged menstruation, in albuminuria, &c., have been made by Prof. Gunning S. Bedford, in his important work, *Clinical Lectures on the Diseases of Women and Children*. Third Ed. 1856. pp. 437, 475, 502, and 525-34.

Pathol. New York, 1853, p. 57-63 and p. 113) that these poisons have two modes of action, entirely different one from the other. One of these modes, which is by far the most frequent, seems to consist only in an increase of the reflex faculty of the cerebro-spinal centre. The poisons which belong to this category, according to my researches, are the following: strychnine, brucine, cyanhydric acid, cyanide of mercury, morphine, nicotine, picrotoxine, digitaline, sulphide of carbon, oxalic acid, &c. The other mode of action of poisons producing convulsions, consists mostly in a direct irritation of various parts of the nervous system. I do not know of any other poison, acting exclusively in this way, except a substance existing normally in the blood, which accumulates during asphyxia, and which very likely is carbonic acid. The differences between these two modes of action of poisons are striking. In one of these modes there is no irritation, or at least very little, produced upon the nervous system or the contractile tissues, and therefore there is no convulsion directly caused by the poisons belonging to this category.

It will probably surprise many persons to hear that strychnine, cyanhydric acid, brucine, &c., do not directly give convulsions—but this is a fact; these substances do not seem to have any power of excitation either on muscles, on sensitive and motor nerves, or even on the spinal cord. Perhaps some of the poisons, of which a list is to be found above, have a slight power of excitation on the spinal cord, but they certainly do not cause directly the powerful convulsions which are attributed to them. They act almost only in increasing the reflex power of the cerebro-spinal centre, in such a manner that the least excitation, as, for instance, a voluntary or a respiratory movement, or any other kind of irritation of nerves of the skin or of the mucous membranes, causes convulsive reflex movements. We might say that they act in giving to the nervous centres the faculty of causing convulsions *when the centres are irritated, but they do not irritate*. (For the proofs of these views, see my work above quoted, p. 57-63.) On the contrary, black blood, or very likely carbonic acid, seems to destroy the reflex power of the cerebro-spinal centre, but at the same time it *irritates* violently this centre, and, therefore, causes directly powerful convulsions. This last poison differs also from the preceding in being able to irritate directly muscles and motor or sensitive nerves. (See for this and other influences of black blood, or rather of carbonic acid, my work, already quoted, p. 110-13, and p. 117-24. See, also, the thesis of my friend and pupil, Dr. Brandt, entitled *Des phenomenes de contraction*

observe chez des individus morts du cholera ou de la fièvre jaune, Paris, 1855, and my paper on red and black blood in the *London Medical Times and Gazette*, Nov. 17, 1855, p. 492-94.)

There are, therefore, some poisons that cause convulsions indirectly, by increasing the reflex power of the cerebro-spinal centre, and not in irritating them, while there are others which cause convulsions directly by an irritation of the cerebro-spinal centre. In which of these two categories are we to place the poisons, contained in blood in cases of epilepsy, where some secretion (the urinary, the biliary, &c.) is suppressed or much diminished? This is quite an undecided question. Many other things are still to be known concerning these poisons; but we do not intend to examine this subject here. We wished merely to say, that even in cases where there is some ground for the humoral theory of epilepsy, proposed by Dr. Todd, we have no proof that the poison acts as this eminent physician supposes. We will add that even in cases of organic disease of the kidney, coincident with epilepsy, we are not entitled to declare positively that it is in consequence of the accumulation of some of the principles of urine in the blood, that the fits are produced, as it might be that they result from an irritation of the renal nerves, as it is the case when there are calculi in the tubuli of the kidneys, without a notable diminution of the secretion of these glands. On another side it is very well known, as Prevost and Dumas, Segalas, Tiedemann and Gendrin, Mitscherlich, Bernard and Barreswil, Stannais, Frerichs and myself have ascertained many times, that after the extirpation of the kidneys, *i. e.*, when the urinary secretion is as much diminished as possible, convulsions are very rarely produced, and never violent. So that in a case of epilepsy with renal disease, either the convulsions have no relation whatever with the renal affection, or if they have a relation, it is either through the agency of the renal nerves, or in consequence of a transformation of some element of the urine in the blood, as these elements seem to be unable to cause convulsions. It is mostly this last argument which has led Frerichs, in his very interesting work on Bright's disease (*Die Bright'sche Nervenkrankheiten*, Leipzig, 1852), to his so-much-debated theory of uræmia.

As a general conclusion of our discussion of the humoral theory of epilepsy, we will say: 1st, that even in the cases where there is probably a poison in the blood, its relations with the production of fits is not known. 2d, that we are not entitled to consider as due to the elements of certain secretions, remaining in the blood, the epileptic fits which may exist when the

glands producing these secretions are diseased. 3d, that there are a great many cases of epilepsy in which the cause of the fit is not in the blood.—*Boston Medical & Surgical Journal*.

BOOK NOTICES.

Clinical Lectures on Certain Diseases of the Urinary Organs: and on Dropsies. By ROBERT BENTLY TODD, M.D., F.R.S., &c., &c. Published by Blanchard & Lea, Philadelphia. For sale by Keen & Lee, Chicago.

No one familiar with Dr. Todd's "*Clinical Lectures on Diseases of the Nervous System*," need be reminded of the eminently instructive style and highly practical value, which his productions possess. Written, as they are, amid the daily scenes of hospital life and duty, by one so peculiarly adapted to the occupation of teaching, they come to us filled with the rich experience thus afforded, so moulded and shaped, and so well founded on careful and unbiassed observation, that we no longer look upon the diagnosis of disease, as difficult, and, at times impossible, but, rather, as requiring only a careful analysis to completely comprehend it. Indeed, were we disposed to dissent from any part of this or his former work, it would be the regularity with which he represents the clinical phenomena attendant on different forms of disease affecting the same organ; and, the apparent ease with which he would have us arrive at difficult and delicate points in diagnoses. We are well aware that practice and experience will do much, very much, toward making us experts, but yet, with all this, we often find, in actual practice, the symptoms so various and complicated that considerable doubt will, in spite of us, remain in regard to the precise nature of the difficulty. In the preface, he says: "My aim has been to teach by examples; to inculcate cardinal points of diagnosis, treatment, and pathology by observations made at the bedside, and by illustrations drawn from suitable cases." His method is one that commends itself to the good opinion of every sensible man, and the interest and instruction derived from the perusal of the work now under consideration,

interspersed as it is by illustrative cases, at once demonstrate its superior merit. The work before us contains 270 pages, divided into sixteen lectures. The first two lectures are on Hæmaturia; which he has divided for clinical purposes into *Vesical* and *Renal*. After giving the characteristic symptoms of each, and the points for a differential diagnosis, he proceeds to the detail of illustrative cases. For the purpose of indicating the peculiar characteristics of *renal* hæmaturia, he has detailed nine cases, which, for aptness and instructiveness, could not have been better selected or given in better style. He regards this form of hæmaturia as being dependent on an irritated or inflammatory condition of the kidney, and as being of two kinds: *active* and *passive*. As regards active and passive hemorrhages, he says: "In *active* hemorrhage, the rupture of the vessels arises from the attraction of an inordinate quantity of blood to them; in *passive* hemorrhage the same rupture arises not simply from the quantity of contained blood, but, rather, from its depraved quality; and the ill-nourished and weakened condition of the coats of the vessels themselves, which give way on the slightest increase of pressure. And I would especially direct your attention to the fact, that the hemorrhage of the *active* form may, by long continuance or by any cause tending to impoverish the blood and to weaken the general nutrition, degenerate into that of the *passive* kind. Vesical Hæmaturia, he considers as dependant on three causes; *first*, cystitis; *second*, retention of urine, and generation of carb ammon, by the decomposition of urea; and *third*, the presence of a fungoid growth from the mucus membrane of the organ. Four illustrative cases are given and the subject closed by timely suggestions in regard to treatment. Lectures III. and IV. are devoted to the consideration of "*those Diseases of the Kidney with which are associated an Albuminous condition of the Urine and Dropsy.*" These cases, he says, naturally divide themselves into two great classes. "Of these, the *first* includes those cases which are distinctly and decidedly dropsical; the *second* consists of those cases in which the dropsy attracts but little attention, is very variable in amount, being in some cases considerable, but never excessive, while in others it may be very slight indeed, or even altogether

absent; and in some instances, the disease may go on for a long time, and, possibly, destroy the patient's life without giving rise to the least œdema." He considers those cases belonging to the first class; namely, those which are distinctly dropsical, as being generally *acute*, and arising from cold or following scarlet fever. The second class of cases, viz., those in which the dropsy is not a prominent feature, he divides into three varieties dependent on the quantity and quality of the urine. He also regards the dropsy which accompanies these cases as being *chronic*, thus constituting the essential difference between this and the former class. These cases, when considered in reference to the general symptoms, exhibit a good deal of variety. The urine varies in amount, quality, density, and color. The albumen and dropsy, both important symptoms, are likewise subject to very great variations, and hence, we find, that he has sought to associate and reconcile all these changes, with certain pathological conditions of the kidney. Of these morbid conditions, he mentions two, which are essentially different, and with which are associated different clinical phenomena. The two morbid states of the organ are: *first*, those in which there is an *increase* of size and weight; and *second*, those in which there is a *decrease* of size and weight. Two forms of enlargement are mentioned; one, in which the pathological condition comes on *rapidly* and gives rise to *acute* symptoms; the other, in which the morbid process is *slow*, and produces symptoms of a *chronic* nature. To the first (*acute*), belong those cases of acute dropsy, dependant on scarlet fever and exposure; also, to phlegmonoid inflammation of the organ. To the second (*chronic*) belong those cases of *fatty and waxy degeneration* of the organ. To illustrate, by examples, the distinctive features of each of these classes, he has given the clinical history of three cases. *First*, a case of *fatty degeneration*; *second*, a case of *waxy degeneration*. Each of these cases afford an example of *chronic* enlargement, in which dropsy is not a prominent feature. The third case is given to illustrate the *chronic contracted kidney*. He has dwelt at some length on the differential diagnosis of these different forms of renal disease, and on the pathological condition which belongs to each. His remarks deserve the careful

consideration of every intelligent and thinking man, but whether we shall be able to carry them to the bed side, and then say, these signs are those which belong to this or that form, with satisfaction to ourselves, and profit to our patient, can only be determined by actual trial. Theories are always convenient, and we all like to act upon them; but yet, they often require so great a stretch of the imagination as to afford very little satisfaction. Lecture V. is short, but contains some excellent remarks on the "*General Doctrines of Dropsy*," with the history of a very interesting case, showing how it may be produced by pressure on a urinous trunk, and also, how it may assist in forming a correct diagnosis; however, we may pass it over without any special comment. Lectures VI. and VII. comprise the more particular study of "*Dropsy after Scarlet Fever*." After describing the rationale of its mode of invasion, and also the condition of the urine, he mentions *three* necessary elements for its production. These are: *first*, an irritated state of the kidney; *second*, an analogous morbid state of the skin; and *thirdly*, a certain depravity of the blood. Either of these three conditions being absent, he believes that "though we may have a threatening of dropsy, the full result will not follow." A case is given to show the ordinary clinical history of this form of dropsy, and to illustrate the existence of the three necessary elements, before mentioned. He has dwelt at length on the concurrence of this morbid state of the kidney, skin, and blood, and sought to establish a theory which would explain the occurrence of the dropsy, and the clinical phenomena which these cases present. His theory is, indeed, a plausible one; but, that he entertains a doubt that it may not stand the test of future observation, his closing remarks plainly indicate. He says, "such is my theory of the dropsy after scarlet fever. What may be the ultimate fate of it upon a larger induction of facts, I will not attempt to predict. I offer it to you now, as a convenient mode of connecting the various phenomena, which accompany, and doubtless tend to the production of, the dropsy. The treatment he recommends has for its chief object the allaying of this irritated condition of the kidney. The principal means employed for this purpose are, the hot-air bath,

hydragogue cathartics, and some of the milder diuretics, which do not exercise any direct irritative action on the kidney. In addition to these means, if the kidneys do not seem to act properly, he adds local venesection over the region of the organs, late in the disease, that is, after we have succeeded in eliminating the morbid poison from the system, and only have local congestion. "This treatment is not intended to be antiphlogistic, but calmative and elimatory, soothing the renal irritation, eliminating water by the bowels, the kidneys, and the skin. The cerebral complications which not infrequently occur in this affection, are to be treated by counter-irritation; bleeding, general or local, is inadmissible. He regards this form of dropsy as being generally amenable to treatment, especially when the fever has been treated mildly, and the powers of the patient sufficiently guarded. Furthermore, contrary to the general opinion, he does not regard patients thus affected as being especially liable to subsequent renal disease. Though the affection generally terminates favorably, it does not always, and for the purpose of illustrating the prominent features of those cases most apt to prove fatal, he has detailed four cases, and given the immediate cause of death in each. In two, the fatal result depended on an œdematous condition of the lungs; one, on coma; one, on serous inflammations. There are many other points of interest in these two lectures, but as it would require a more extended notice than our space would admit to give any definite idea of their import, I shall be obliged to pass on to briefly consider the remainder of the work. Lecture VIII. "*On Acute Renal Dropsy.*" The distinction made between this, and dropsy following scarlet fever, is, that "in the latter we can trace the direct influence of an animal poison, which produces well-defined phenomena as constant and specific as those which would arise from the ingestion of arsenic, prussic acid, or strychnia. In the former, we have a dropsy of a precisely similar kind, and a state of kidney also the same; but we are unable to trace up these pathological conditions to the influence of any agent introduced from without." Illustrative cases are given, followed by general remarks, and also a detailed account of the various organic derangements which accompany and com-

plicate this form of dropsy. He has arranged these in two classes. *First*, the *intrinsic*; and *secondly*, the *extrinsic*. The first of these derangements stand to the dropsy in the relation of cause and effect, and belong especially to the peculiar anatomical condition of the kidney, which is the same as that which occurs in dropsy after scarlet fever. He has described this morbid condition, and given an explanation of its mode of production. The *second* class of complications are, *first*, inflammations of serous membranes; *secondly*, an irritated state of the liver. The remainder of this lecture treats of the pathology, prognosis, and treatment of this disease, with more than ordinary interest. The prognosis is, on the whole, favorable: death being uncommon, unless the renal irritation proceeds so far as to produce extensive disorganization of the organ. One important element, however, in making a diagnosis, is to ascertain the previous existence of chronic renal affections; as it not infrequently happens that persons have fatty disease of the organ for a long time, without a single symptom to indicate its existence. An attack of acute renal disease, supervening on one of a chronic nature, would be much more unfavorable, and the prognosis, consequently, much graver. The principles of treatment are the same as in those cases of dropsy following scarlet fever. The eight last lectures comprise the consideration of the following subjects: Lecture IX. "on Cardiac Dropsy; X. and XI. on Ascites; XII. on the Gouty Kidney; XIII. and XIV. on Cases in which Pus is found in the Urine, and on Gouty Inflammation of the Bladder; XV. and XVI. on Gout. These subjects are well illustrated by cases given in admirable style, and freely commented on. In Lecture XV. "*on Gout*," he gives some very valuable suggestions in regard to treatment. A necessary feature to be borne in mind in treating this disease under any plan, is, that the great majority of cases occurring in men of good constitution will get well without any specific treatment. He supposes a hundred cases of this kind; and says, by confinement to bed, by applying warmth, by giving light, wholesome, nourishing diet, and prohibiting all kinds of liquor, seventy will get well without any unfavorable symptoms, in from four days to a fortnight. But can we not accelerate the

cure? He believes we can; and recommends mild purgation, diaphoretics, warmth to the affected joint, and if the urine be acid, alkalies. He also highly recommends counter-irritation over the affected joint by means of *small* blisters. Leeching the gouty joints he condemns without hesitation; not because it does not afford marked relief, but because it is apt to leave a state of permanent weakness, from which the patient will be a long time in recovering. The treatment by Colchicum, he mentions only to condemn. He has given his reasons for abandoning the use of this drug at considerable length, and they deserve the careful consideration of his readers. His last Lecture "*on Asthmic Gout*," affords many profitable suggestions in regard to the treatment of this form of the disorder, and especially where it attacks the internal organs, but thus barely mentioning it is all we can do in this already too long notice. The whole work is one that has been long wanted by the practitioner, as the subjects which comprise it have not, heretofore, been treated in the clinical and bedside manner pursued by Dr. Todd. We most confidently recommend it to the liberal patronage of our professional brethren.

G. K. A.

Transactions of the American Medical Association, Vol. IX.
1856. Philadelphia: Printed for the Association by T. R.
& P. G. Collins.

We had intended to continue our notice of the different papers in this volume, but our present time and space will permit only an enumeration of those not heretofore noticed. They are as follows: 'Topography of the Eastern Shore of Maryland.' 'Report on the Yellow Fever of Charleston in 1854,' by Dr. Cain. 'Report on the Epidemics of Louisiana, Mississippi, Arkansas, and Texas,' by Dr. Fenner. 'Report on the Sanitary Condition, Meteorology, and Mortality of New Orleans, in 1854-55,' by Dr. Barton. 'Report on Strychnine,' by Dr. L. H. Steiner; and the 'Prize Essay on the Arterial Circulation,' by Dr. Henry Hartshorne, of Philadelphia.

All these are papers of interest and value, and we again express the hope that the volume may be purchased and read by a large portion of the physicians of the North-West.

EDITORIAL.

American Medical Association.

The tenth annual meeting of this important organization was held on the 5th, 6th, and 7th, days of May, in the city of Nashville, Tennessee. Owing to the length of time required to reach the place of meeting from the North-West and North, the number of delegates in attendance was not as large as at former meetings of the Association. We had intended to give a full record of the Proceedings, in this number of the Journal, but the reports furnished through the Nashville papers are too incomplete for our purpose, and we shall, therefore, wait until an official copy is received. The following are the officers chosen for the present year, viz. :—

Dr. PAUL F. EVE, of Tennessee, *President*.

Drs. R. J. BRECKENRIDGE, of Kentucky; D. M. REESE, of New York; W. H. BYFORD, of Indiana; and H. F. CAMPBELL, of Georgia, *Vice-President*.

Drs. R. C. FOSTER, of Nashville, and A. J. SEMMES, of Washington City, *Secretaries*.

The place selected for holding the next Annual Meeting is Washington, D. C. We clip the following from the *Republican Banner*, a Nashville paper :—

American Medical Association.—This distinguished body adjourned *sine die* yesterday at 2 o'clock. The Association transacted a large amount of business for the time occupied, very little time being occupied in discussion. The subject of Medical Education aroused some feeling yesterday morning, and a very able debate grew out of it.

The occasion has been one of great pleasure to our citizens, and we trust no less so to the members of the Association.

The festivities were concluded last night by a grand ball and supper at the Capitol, at which was assembled an array of beauty and fashion which could scarcely be eclipsed in brilliancy anywhere.

The members generally leave for their homes to-day. We wish them one and all a safe return to their homes and families.

P.S.—We have just received extra sheets of the *Nashville Journal*, with the Proceedings in full; for which the editors will accept our thanks.

Cook County Medical Society.

At the Annual Meeting of this Society, held April 7, 1857, the following officers were elected for the ensuing year, viz.:—For President, Dr. N. S. Davis; Vice-President, Dr. H. Parker; Secretary and Treasurer, Dr. T. Bevan. Drs. Wagner, J. Newton, E. L. Holmes, and H. F. Smith were elected members. And Drs. Bevan, Wickersham, Woodworth, Peterson, and Cheeney were elected delegates to the State Medical Society; which holds its regular annual meeting in this city, on Tuesday, June 2d, 1857.

TO CORRESPONDENTS.—We have on hand several letters and short articles which shall receive due attention in our next No.

Galena Medical Society.

Pursuant to a call, signed by the physicians of this city, a meeting was held at the office of Drs. Newhall and Hempstead, on Thursday evening, April 2d, for the purpose of organizing a City Medical Society.

Dr. Newhall was called to the chair, and Dr. Barker appointed secretary.

A Constitution and By-Laws for the government of the society were presented, and unanimously adopted.

The following gentlemen were then elected officers for the ensuing year:—

Dr. H. NEWHALL, *President.*

Dr. J. S. CRAWFORD, *Vice-President.*

Dr. W. S. BARKER, *Secretary.*

Dr. E. D. KITTOE, *Treasurer.*

A list of charges for professional services were then presented, which, after thorough discussion, and some emendation, was unanimously adopted.

It was decided that the National Code of Ethics be adopted by the Society, and that its rules should strictly regulate the professional conduct of members in all cases.

The Society appointed a Delegate to the American Medical Association, which convenes at Nashville, Tenn., in May.

On motion of Dr. McKenney, it was resolved that the Fee

Bill be printed, with the names of the members of the Society and its officers appended thereunto.

The Secretary was required to furnish the editors of the city papers with an account of the proceedings of the meeting, requesting their publication.

The Society then adjourned to meet in quarterly session on the second Saturday in July next, at 7½ o'clock, P.M.

H. NEWHALL, M.D., *President*.

W. S. BARKER, M.D., *Secretary*.

Reversed conformation and complete transposition of all the Thoracic and Abdominal Viscera, in a man twenty-one years of age. By ANDREW FOSTER, M.D., of Terre Coupee, St. Joseph County, Indiana.

TERRE COUPEE, May 7th, 1857.

PROF. N. S. DAVIS:

Dear Sir: The above caption expresses literally the facts of this very singular case; nevertheless to gratify the inquisitive and convince the sceptical, I will particularize as briefly as possible by referring to Wilson's (or any other) Anatomy. Turn to the appropriate chapter; 1st, of the lungs; 2d, of the stomach, duodenum, jejunum, illium, and colan; 3d, the heart and arteries and veins, 4th, the liver; 5th, the spleen; and 6th, the kidneys. Then read, transposing the terms right and left, or in other words, for the word right, wherever it occurs in the text, read left, and for left read right, and you have an accurate description of the anatomical structure, conformation and position of the organs, as revealed in this dissection, excepting only the kidneys;—here Nature seems to have made an effort to preserve the normal relative positions of these organs, and to have succeeded but too well; that on the left side being a little too high, while that on the right is a great deal too low, being entirely within the pelvis. The supra-renal capsule is on a level with the promontory of the sacrum, the lower end of the kidney reaching to the coxyx, and the body lying close along the right side of the sacrum.

This subject died on the 5th instant, after an illness of a few days, of pulmonary congestion. I was called in during his illness, by Dr. Rouse, the attending physician, and observing the heart to beat at a point between the fifth and sixth ribs of

the right side, for which phenomenon I was unable to account satisfactorily to either myself or the friends. After death, I asked for and obtained the privilege of an autopsy, which, assisted by Dr. Rouse, we immediately set about executing, twenty hours after dissolution.

This young man was short, heavy set, strong, active, and muscular, of sanguine temperament, with very short neck and capacious chest. Up to his thirteenth year he had been remarkably strong, active, and healthy; but about that age he *began to have fits*, as they expressed it, but what kind they were I am not able to form an opinion from the imperfect description of the symptoms, as detailed by the friends. Lately they had become less frequent, having had but two in the last two years, the last one being about the commencement of the last sickness.

I have preserved the heart for the inspection of the curious, and any further information in regard to the particulars will be cheerfully imparted to any inquirer.